

# Navajo Abandoned Uranium Mine Site Screen Report

*This form is for use at the site of abandoned uranium mines (AUM) located on Navajo Nation lands. Applicable sites include all mine and mine features that have or have not undergone reclamation by the Navajo Abandoned Mine Lands Reclamation Program, including features, adits and pits. Applicable sites also include all AUM sites listed in the USEPA CERCLIS database, all sites listed in the 2008 AUM GIS Report issued by USACOE and USEPA, all AUM sites on allotment lands associated with the Navajo Nation, and any and all AUM sites lands not listed in any database located on Navajo lands. Reconnaissance of any sites located on lands adjacent to Navajo lands but that are or may be impacting Navajo lands will need to be coordinated with the authorities appropriate to those lands.*

*The purpose of the form is to ascertain the status and location of the identified AUM site, to record all immediate site information associated with the mine site and to document the recommendation and/or decision on what additional steps, if any, are needed at the site.*

**Mac No. 2 AUM Site**

**Navajo AUM Eastern Region**

**Prepared by:**

**Weston Solutions, Inc.**

**Contract: W91238-06-F-0083**

**12767.063.496.1111**

**May 2009**

**Part I Site Identification, Location and Status****Site Names and ID numbers as applicable****Mine ID:** 320**Map ID:** E33**CERCLIS:** NNN 000 908 728**NAMLRP:** NOT ASSIGNED**New Mexico Mining and Mineral Division ID:** NM0094**New Mexico Bureau of Geology and Mineral Resources:** NMMK0098**Local name / Aliases:** Mac #2, Kerr McGee**Chapter and local area:** Smith Lake Chapter**Lat/Long:** 35.5269579107 N / -108.247081921 W**Nearby road and highway:** BIA 491 (Wolf Canyon Rd) BIA 49**Local Post Office:** Thoreau, NM**Land Status: check one or more and provide ownership and contact information below**

<b>Tribal Trust Land</b>	<input type="checkbox"/>
<b>Tribal Fee Land</b>	<input type="checkbox"/>
<b>Allotment</b>	<input checked="" type="checkbox"/>
<b>Fee land</b>	<input type="checkbox"/>
<b>Public lands</b>	<input type="checkbox"/>
<b>Private</b>	<input type="checkbox"/>
<b>Bureau of Land Mgmt</b>	<input type="checkbox"/>
<b>State</b>	<input type="checkbox"/>

**Ownership and contact information:**

The mine site property is classified as Indian Allotment land.

## **Part II            Site Observations**

**Observed Structures: list number of and describe human habitation status of structures at the following distances from mine:**

**0 to 200 feet:** None                      **200 feet to 0.25 mile:** None

**Observed Public or commercial structure: list and describe all schools, clinics, Chapter Houses, places of business and any other structure used by members of the community at the following distances:**

**0 to 200 feet:** None                      **200 feet to 0.25 mile:** None

**Levels measured around the perimeter(s) of the identified structure(s):**

None

**Observed water sources: list the number and type of wells and surface water sources that are potentially used for human consumption at the following distances from the mine:**

**0 to 0.25 miles:** None                      **0.25 miles to 4 miles:** DWR well T16-509 located  
2.75 miles northwest of site

**Sensitive environments: note and describe all sensitive environments located within visible range of the mine site, including: wetlands, endangered species habitats and approximate locations of sites that may be under protection of the government of the Navajo Nation.**

None observed

**Known Site History: include information from interviews with Chapter officials and residents.**

**Note information on mine ownership, period of operation, and type of mining operation.**

The Mac No.2 mine consists of an area of 26,136.47 square meters with approximately 40,577 square meters of underground workings. Any historical information pertaining to mining operations and historical ownership of the mine site appeared to be unclear.

**Part III      Type, number and reclamation status of mine features**

**Provide description and reclamation status of all mine sites and features at site. Include all waste piles, adits, pits and other features, and indicate whether they are open, closed, covered, capped, buried or unreclaimed. Indicate approximate size, shape and extent, including description of any reclamation caps. Note condition of all reclamation caps.**

Reclamation status of the mine sites are currently unknown. No visible signs of reclamation were observed. Several piles of pulverized waste rock remain at the site. Two concrete pads are located on the eastern portion of the property. No waste piles, adits, or other mine features were observed during the site visit.

**Part IV      Summary of radiological readings****Background Locations**

#1 17,068 cpm

#2 15,717 cpm

#3 16,073 cpm

**Mine site:** Mac No. 2

- See Figures 1 and 2

**Nearby Structure Perimeter** – None

**Describe any other radiological measurements:**

A total of 1,649 gamma radiation measurements were collected from mine sites, ranging from 12,997 cpm to 238,218 cpm. The measurements are represented in Figures 1 and 2.

**Part V            Site sketch of all mine features and readings, including locations of all structures, sources of drinking water and any other important features and radiological readings.**

Presented in Figures 1 and 2

## **Part VI        Response Action Summary**

**Site Name(s):** Mac No. 2

**Chapter:** Smith Lake

### **Decision Criteria**

**Is there an unreclaimed waste pile at the site?** Yes

**At what distance from the waste pile is the nearest residential structure located?** 0.5 mile

**At what distances from the waste pile are there potential drinking water sources?**

A domestic well is located 2.75 miles to the east. DWR well T16-509 is a livestock well located 1.9 miles to the east, however the well is posted as non-potable water. Drinking water for the residences in the area is piped in.

**Is there a reclamation cap or sealed adit in place at the site?** No

**Is the cap/seal functionally intact?** N/A

**Is the cap/seal sufficiently degraded to create a concern about releases?** N/A

**At what distance from the cap/seal is the nearest domestic structure located?** N/A

**At what distance from the cap/seal is the nearest domestic drinking water source?** N/A

### **Summary of emergency response factors**

None

### **Summary hazard ranking system factors**

None

### **Summary of reclamation factors**

No known reclamation

## Part VII      Photos



Photo 1. Mac No. 2 Mine site, towards the north



Photo 2. Mac No. 2 Mine site, towards the northwest



Photo 3. Mac No. 2 Mine site, waste pile located along the eastern edge of the site



Photo 4. Mac No. 2 Mine site, debris pile on the mine site





Photo 5. Mac No. 2 Mine site, two concrete pads at the eastern portion of the site



Photo 6. Mac No. 2 Mine site, waste piles along the eastern edge of the site

**Part VIII      Contacts Reports and Information**Name Stanley EdisonTitle or official role (if any) Navajo EPA Superfund ProgramAddress PO Box 2946, Window Rock, AZ 86515Information provided General Background and Contact/Access Information

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Name Ms George PadillaTitle or official role (if any) Regional Environmental Scientist, BIA, Navajo NationTelephone number (505) 863-8434Address PO Box 1060, Gallup, NM 87305

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Name \_\_\_\_\_

Title or official role (if any) \_\_\_\_\_

Telephone number \_\_\_\_\_

Information provided \_\_\_\_\_

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Name \_\_\_\_\_

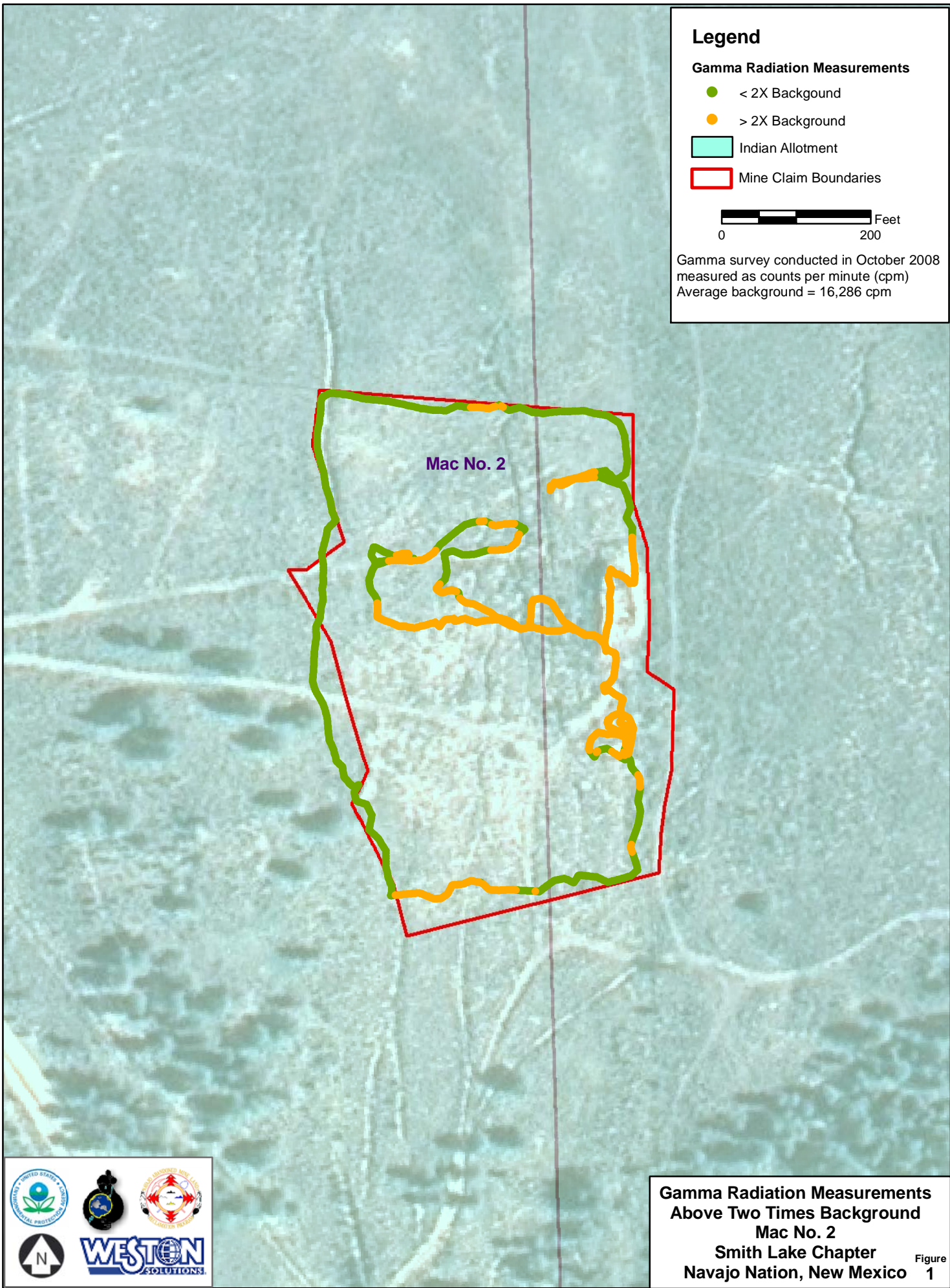
Title or official role (if any) \_\_\_\_\_

Telephone number \_\_\_\_\_

Information provided \_\_\_\_\_

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**Gamma Radiation Measurements  
Above Two Times Background  
Mac No. 2  
Smith Lake Chapter  
Navajo Nation, New Mexico**



## Legend

### Gamma Radiation Measurements

- 0 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 50,000
- 50,000 - 100,000
- > 100,000

□ Mine Claim Boundaries

0 250 Feet

Gamma survey conducted in October 2008  
measured as counts per minute

Mac No. 2



Gamma Radiation Measurements  
Mac No. 2  
Smith Lake Chapter  
Navajo Nation, New Mexico

Figure  
2